# MAR 1 3 2002 INFORM TION DISCLOSURE STATEMENT BY APPLICANT

DOCKET NO. 10020/20702 **APPLICANT** LAMANSKY et al. FILING DATE

#### U. S. PATENT DOCUMENTS

October 16, 2001

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE
1	:					

#### FOREIGN PATENT DOCUMENTS

· · · · · · · · · · · · · · · · · · ·				TRANSLATION			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS_	SUBCLASS	YES	NO
						4	<b>~</b>

#### OTHER DOCUMENTS

	OTHER DOCUMENTS					
EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.					
Mey	M. A. Baldo, et al., "Highly efficient phosphorescent emission from organic electroluminescent devices Nature, September 1998, Vol. 395, pp. 151-154.					
Ney	M.A. Baldo, et al., "Very high-efficiency green organic light-emitting devices based on electrophosphorescence", Applied Physics Letters, Vol. 75, No. 1, pp. 4-6, 8 July 1999.					
Mey	C. Adachi, et al., "High-efficiency organic electrophosphorescent devices with tris(2-phenylpyridine) iridium doped into electron-transporting materials", App. Phys. Lett., Vol. 77, No. 6, pp. 904-906, (7 August 2000).					
Mey	C. Adachi, et al., "High-efficiency red electrophosphorescence devices", App. Phys. Lett., Vol. 78, No. 11, pp. 1622-1624 (12 March 2001).					
May	C. Adachi, et al., "High efficiency organic light emitting diodes using electrophosphorescence", Am. Phys. Soc., Series II, Vol. 46, No. I, Part II, p. 863 (March 2001).					
Mey	M.A. Baldo, et al., "Excitonic singlet-triplet ratio in a semiconducting organic thin film", Phys. Rev., B Vol. 60, No. 20, pp. 14422-14428 (18 November 1999).					
Mey	R.H. Friend, et al., "Electroluminescence in conjugated polymers", Nature (London), Vol. 397, pp. 121-128 (14 January 1999).					
Ney	Y. Cao, et al., "Improved quantum efficiency for electroluminescence in semiconducting polymers", Nature (London), Vol. 397, pp. 414-417 (# February 1999).					
Mey	M.A. Baldo, et al., "Transient analysis of organic electrophosphorescence: I. Transient analysis of triplet energy transfer", Phys. Rev. B Vol. 62, No. 16, pp. 10958-10966 (15 October 2000).					
MRY	W.E. Ford, et al., "Reversible triplet-triplet energy transfer within a covalently linked bichromophoric molecule", J. Phys. Chem., 96, pp. 2917-2920 (1992). (April 2, 1992).					
Mey	A. Harriman, et al., "A ruthenium (II) tris(2,2'-bipyridine) derivative possessing a triplet lifetime of 42us"  R. Chem. Commun., pp. 735-736 (1999).					
Mey	Gary L. Miessler, et al., Inorganic Chemistry, 2nd Edition, Prentice-Hall (1998), pages 1-3, 422-424. (no Management of the Company of the Co					

Marie R. Yamnitzky

03/10/03

EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
MENTE	O. Lohse, et al., "The Palladium Catalysed suzuki coupling of 2- and 4-chloropyridines", Symeth 1999, 41, pp. 45-48.
MAR 1 3 2002 2	O.G. Wu, et al., "Blue-luminescent/electroluminescent Zn(II) compounds of 7-azaindole and 12-Pyridyl)-7-
	Y. Ma, et al., "A ligand-stabilized tetrameric zinc (II) cluster with high-efficiency emission from both singlet and triplet excited states for electroluminescent devices", Adv. Mat., 12, No. 6, pp. 433-435 (2000). (March 2000)
HAREMB	A.W. Grice, et al., "High brightness and efficiency blue light-emitting polymer diodes", Appl. Phys. Lett., Vol. 73, No. 5, pp. 629-931 (3 August 1998).
RECE	Hosokawa et al., "Highly efficient blue electroluminescence from a distyrylarylene emitting layer with a new dopant," 67 Appl. Phys. Lett. 3853-3855 (December 1995).
MAR 1 R DOGG	C. Hosokawa, et al., "Organic multi-color electroluminescence display with fine pixels", Synth. Met., 91, pp. (10 Month)
TC 1700	K.A. King, et al., "Excited State properties of a triply ortho-metalated iridium (III) complex", J. Am. Chem. Soc., 107, pp. 1431-1432 (1985).
	S. Lamansky, et al., "Synthesis and characterization of phosphorescent cyclometalated iridium complexes"  Inorganic Chemistry, 40, pp. 1704-1711 (2001). (March 2001).
	C. Adachi, et al., "Electroluminescence mechanisms in organic light emitting devices employing a europium chelate doped in a wide energy gap bipolar conducting host", <u>J. Appl. Phys.</u> , Vol. 87, No. 11, pp. 8049-8055, June 1, 2000.
	M.A. Baldo, et al., "Transient analysis of organic electrophosphorescence: I. Transient analysis of triplet-triplet annihilation" Phys. Rev. B Vol. 62, No. 16, pp. 10967-10977 (16 October 2000).
•	C. Adachi, et al., "Efficient electrophosphorescence using a doped ambipolar conductive molecular organic thin film", Organic Electronics, 2, pp. 37-43 (2001).
	G.W.V. Cave et al., "C-H Activation Indued by Water. Monocyclometalated to Dicyclometalated: C^N^C Tridentate Platinum Complexes", Organometallics 2000, Vol. 19, No. 7, pp. 1355-1364. (published on Neb
	103/03/2000
	D.F. O'Brien, et al., "Improved energy transfer in electrophosphorescent devices", Applied Physics Letters, Vol. 74, Number 3, pp. 442-444, (January 18, 1999).
	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet
	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet emissive center", Japanese. J. Appl. Phys., Part 2, No. 12B, vol. 38, pp. L1502-1504 (18 December 1999).  M. J. Yang et al., "Use of Poly(9-vinylcarbazole) as host material for iridium complexes in high-efficiency organic light emitting devices", Japanese J. Appl. Phys., Part 2, No. 8A, vol. 39, pp. L828-829 (1 August 1).
	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet emissive center", Japanese. J. Appl. Phys., Part 2, No. 12B, vol. 38, pp. L1502-1504 (13 December 1999).  M. J. Yang et al., "Use of Poly(9-vinylcarbazole) as host material for iridium complexes in high-efficiency organic light emitting devices", Japanese J. Appl. Phys., Part 2, No. 8A, vol. 39, pp. L828-829 (1 August 1, 2000).  C. L. Lee et al., "Polymer phosphorescent light-emitting devices doped with tris(2-phenylpyridine) iridium as
	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet emissive center", Japanese. J. Appl. Phys., Part 2, No. 12B, vol. 38, pp. L1502-1504 (13 December 1999).  M. J. Yang et al., "Use of Poly(9-vinylcarbazole) as host material for iridium complexes in high-efficiency organic light emitting devices", Japanese J. Appl. Phys., Part 2, No. 8A, vol. 39, pp. L828-829 (1 August 1, 2000).  C. L. Lee et al., "Polymer phosphorescent light-emitting devices doped with tris(2-phenylpyridine) iridium as a triplet emitter", Appl. Phys. Lett., vol. 77, no. 15, pp. 2280-2282 (2 October 2000).  Shirota et al., "Multilayered organic electroluminescent device using a novel starburst molecule, 4, 4', 4"-tris(3-methylphenylamino) triphenylamine, as a hole transport material", Appl. Phys. Lett., vol.65, no.
V	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet emissive center", Japanese. J. Appl. Phys., Part 2, No. 12B, vol. 38, pp. L1502-1504 (18 December 1999).  M. J. Yang et al., "Use of Poly(9-vinylcarbazole) as host material for iridium complexes in high-efficiency organic light emitting devices", Japanese J. Appl. Phys., Part 2, No. 8A, vol. 39, pp. L828-829 (1 August 1, 2000).  C. L. Lee et al., "Polymer phosphorescent light-emitting devices doped with tris(2-phenylpyridine) iridium as a triplet emitter", Appl. Phys. Lett., vol. 77, no. 15, pp. 2280-2282 (1 October 2000).  Shirota et al., "Multilayered organic electroluminescent device using a novel starburst molecule, 4, 4', 4"-tris(3-methylphenylphenylamino) triphenylamine, as a hole transport material", Appl. Phys. Lett., vol. 65, no. 7, pp. 807-809 (18 August 1994).  M. A. Baldo, et al., "High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer", Nature, Vol. 403, pp. 750-753, 17 February 2000.  Von Zelewsky, et al., "Tailor Made Coordination Compounds for Photochemical purposes", Coordination
Mey	Vol. 74, Number 3, pp. 442-444, (January 18, 1999).  T. Tsutsui et al., "High quantum efficiency in organic light-emitting devices with iridium-complex as a triplet emissive center", Japanese. J. Appl. Phys., Part 2, No. 12B, vol. 38, pp. L1502-1504 (18 December 1999).  M. J. Yang et al., "Use of Poly(9-vinylcarbazole) as host material for iridium complexes in high-efficiency organic light emitting devices", Japanese J. Appl. Phys., Part 2, No. 8A, vol. 39, pp. L828-829 (1 August 1, 2000).  C. L. Lee et al., "Polymer phosphorescent light-emitting devices doped with tris(2-phenylpyridine) iridium as a triplet emitter", Appl. Phys. Lett., vol. 77, no. 15, pp. 2280-2282 (1 October 2000).  Shirota et al., "Multilayered organic electroluminescent device using a novel starburst molecule, 4, 4', 4"-tris(3-methylphenylphenylamino) triphenylamine, as a hole transport material", Appl. Phys. Lett., vol. 65, no. 7, pp. 807-809 (18 August 1994).  M. A. Baldo, et al., "High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer", Nature, Vol. 403, pp. 750-753, 17 February 2000.  Von Zelewsky, et al., "Tailor Made Coordination Compounds for Photochemical purposes", Coordination

EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LAMANSKY et al. 09/978, 455

	-		-							
INFO	PMATION DISA	CI OCUB		DOCK 10020/	ET NO 20702				RIAL NO. 978,455	
STAT	RMATION DISC EMENT BY AP PTO-1449	PLACAN	T	APPLI(	CANT NSKY et al.					
		E .			r 16, 2001			GR 177	OUP '4	
<u></u>		RADE	MABY U. S. P.	ATENT DO	CUMENTS					
EXAMINER INITIAL	PATENT NUMBER		PATENT DATE		NAME		CL	ASS	SUBCLASS	FILING DATE
						<u></u>				
							<u> </u>			
			FOREIGN	PATENT D	OCUMENTS				10.	
EXAMINER	DOCUMENT								- F	RAVSLATION
INITIAL	NUMBER		DATE		COUNTRY CL					is To
										Æ
	COPY OF PA	\PERQ								
	ORIGINALLY	FILED	ОТНІ	ER DOCUM	ENTS				<b>3</b>	
EXAMINER INITIAL			Δ1.13	דודו פטעד	E DATE DEPTRIES	VT D . C.				
	S. Laman	ısky, et al., '	"Highly Pi	hosphores	E, DATE, PERTINEN	talatad I		. Cam		
MRY	Photophy American	sical Chara Chemical	cterization	n, and Use	in Organic Light 3, No. 18, pps. 43	Emitting	g Diod	les", J	ournal of the	nesis,
		, .	bociety, v	Oldfile 12.	5, NO. 18, pps. 43	04-4312	2, 2001	·G	ublished 04/13	on Web
				<del>-</del>					04/13/	
						<del> </del>				
										- <u> </u>
EXAMINER \	Marie R. G	banials	les			DAT	ГЕ СО	NSID	PERED A 2 /	. / . =
EXAMINER: In:	itial if citation consideration conformance and not	ered wheth	per or not	citation is i	in conformance w	rith M.P	.E.P. 6	509; d	raw line thro	ugh
					ACAT	- Jiiiiiu	cail0	n to a	ррисані.	_ 1

# INFORMATION DISCLOSURE PSFATEMENT BY APPLICANT PTO-1449

DOCKET NO. 10020/20702	SERIAL NO. 09/978,455
APPLICANT LAMANSKY et al.	
FILING DATE October 16, 2001	GROUP

#### **U. S. PATENT DOCUMENTS**

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE

#### FOREIGN PATENT DOCUMENTS

						TRANSL	ATION
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO

#### OTHER DOCUMENTS

EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
MRY	M. Maestri, et al., "Photochemistry and Luminescence of Cyclometallated Complexes", Advances in Photochemistry, Volume 17, pp. 1-68, 1992.

EXAMINER Marie K.	Jamaitalus	DATE CONSIDERED  83/10/03
, ,		···

EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED

SEP 2 6 2002

TC 1700

OPE JCING		
FEB 1 1 2003 E INFORMATION DISCLOSURE STATEMENT BY APPLICANT PTO-1449	DOCKET NO. 10020/20702 APPLICANT	SERIAL NO. 09/978,455
. PTO-1449	LAMANSKY et al. FILING DATE	GROUP
	October 16, 2001	1774

# U. S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE
				RECE	VEN	
				FEB 1 4	2002	
				7C 17	2003	

# FOREIGN PATENT DOCUMENTS

		· ·				TRANSL	TRANSLATION	
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	
						İ		

### OTHER DOCUMENTS

	I XAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES; ETC.
,	Mey	B.N. Cockburn, et al., "Reactivity of Co-ordinated Ligands. Part XV. Formation of Complexes containing Group V Donor Atoms and Metal-Carbon \(\pi\)-bonds", Journal of the Chemical Society, Dalton Transactions, Vol. 4 (1973), pp. 404-410.

EXAMINER Marie	R.	Jamnitaker.	DATE CONSIDERED	03/10/03
EXAMINER: Initial if citation c	onsidered, w	ether or not citation is in conformance with M.P.E.P. 609; draw	line through citation if not	in conformance and

not considered. Include copy of this form with next communication to applicant.